

Patent Claims:

SW 0147
1. Arrangement of a heating layer (8) for a high-temperature
gas sensor, whereby

3 the heating layer (8) consists of a heating conductor
4 path (6) and

5 the heating conductor path (6) is arranged in a
6 meander-shape between a supply line part (2) and the sensor
7 tip (10),

8 characterized in that the heating conductor path (6)
9 comprises different partial heating resistances between the
10 supply line part (2) and the sensor tip (10), and the
11 magnitude of the partial heating resistance is dependent on
12 the spacing distance of the partial heating resistance of
13 the heating conductor path (6) to the sensor tip (10).

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11 2. Arrangement of a heating layer (8) for a high-temperature
12 gas sensor according to patent claim 1, characterized in
13 that the partial heating resistance diminishes toward the
1 sensor tip (10).

12
13 3. Arrangement of a heating layer (8) for a high-temperature
1 gas sensor according to patent claim 1, characterized in
2 that the path length (1) of the heating conductor path (6)
3 varies dependent on the spacing distance to the sensor tip
4 (10).

- 1 4. Arrangement of a heating layer (8) for a high-temperature
2 gas sensor according to patent claim 2, characterized in
3 that the path length (1) of the heating conductor path (6)
4 diminishes dependent on the spacing distance to the sensor
5 tip (10).
- 1 5. Arrangement of a heating layer (8) for a high-temperature
2 gas sensor according to patent claim 1, characterized in
3 that the width (b) of the heating conductor path (6) varies
4 dependent on the spacing distance to the sensor tip (10).
- 1 6. Arrangement of a heating layer (8) for a high-temperature
2 gas sensor according to patent claim 2, characterized in
3 that the width (b) of the heating conductor path (6)
4 enlarges in a direction of the sensor tip (10).
- 1 7. Arrangement of a heating layer (8) for a high-temperature
2 gas sensor according to patent claim 1, characterized in
3 that the path length of the heating conductor path (6) and
4 the width (b) of the heating conductor path (6) varies
5 dependent on the spacing distance to the sensor tip (10).
- 1 8. Arrangement of a heating layer (8) for a high-temperature
2 gas sensor according to patent claim 2, characterized in
3 that the path length (1) of the heating conductor path (6)
4 diminishes and the width (b) of the heating conductor path
5 (6) enlarges from partial section to partial section in a
6 direction to the sensor tip (10).

- 1 9. Arrangement of a heating layer (8) according to one of the
2 preceding claims, characterized in that additionally at
3 least one measuring conductor path (12) for determining the
4 temperature is applied, and the measuring conductor path
5 (12) is in contact with the heating conductor path (6).
- 1 10. Arrangement of a heating layer (8) according to claim 9,
2 whereby the high-temperature gas sensor comprises a
3 functional layer (4) with the length (L), characterized in
4 that at least one contact is applied between measuring
5 conductor path (12) and heating conductor path (6) in the
6 region of the length (L) below the functional layer (4).
- 1 11. Arrangement of a heating layer (8) according to claim 10,
2 characterized in that more than two contact possibilities
3 (13) are formed between measuring conductor path (12) and
4 heating conductor path (6), in order to select between
5 various different resistance values of the heating
6 conductor path (6).
- 1 12. Arrangement according to one of the preceding claims,
2 characterized in that the length (L) of the functional
3 layer (4) is smaller than the spacing distance (L + G)
4 between supply line part and sensor tip, in which the
5 heating conductor path (6) is arranged.

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